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Health Care in Canada

during the Seventeenth and Eighteenth Centuries

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Canada

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Introduction

The healing arts are as old as humanity itself. The history of medicine is hallmarked by great strides forward yet riddled with long periods of obscurantism, stagnation and even regression.

During the Renaissance, numerous discoveries were made, notably with respect to the internal structure of the body. The works of Leonardo da Vinci (1452–1519) are an excellent example of the genius of this period.

In the seventeenth and eighteenth centuries, the influence of antiquated systems and traditions proved more burdensome than ever and progress slowed considerably. Modern physiology, however, has its origins in this period, and a number of vital discoveries, such as how the blood circulates, were made. Significant advances took place in the fields of reproduction and digestion, and the study of anatomy held a special place of honour, as can be seen in Rembrandt's famous *Lesson in Anatomy*. Several technical advances, so essential to progress in medical research, also marked this period; for example the development of the first compound microscope dates from the seventeenth century. In addition, nosology, or the classification of diseases, was conceived, patterned on principles such as those developed by the Swedish botanist Carolus Linnaeus (1707–78) in the fields of zoology and botany. Two plants brought from the New World—Peruvian bark and Ipecacuanha—played a major role in European therapies; the former proved excellent in reducing fevers, while the latter was very effective in treating dysentery.

When the French established a small settlement in America at the beginning of the seventeenth century, they brought their culture, language, religion and medical traditions. They also brought something more insidious—disease. Before the arrival of Europeans, the native peoples of the Americas apparently suffered from few contagious diseases. As a result, they had no immunological resistance to the new diseases; even an infection as minor as influenza could cause death. The meeting of Old and New Worlds proved tragic for many of them and their populations were decimated.

Although the French colonists found a healthier environment in the New World, they still had significant medical needs. From the beginning of colonization, health practitioners and hospitals strove to meet these ever-growing demands. It is this practice of medicine that we shall examine here. Up until the nineteenth century, it was a medical practice that remained essentially European in its personnel, institutions, methods, instruments, therapies and medicines. However, this practice may best be understood if full attention is given not only to its practitioners, recognized or otherwise, but also to the basic medical needs of a country in the making.[1]

The Health of the Colonists

In the seventeenth and eighteenth centuries, illness was perceived as a manifestation of the power of God. It was thought to be a punishment or a warning. Although such a view may have promoted considerable fatalism, it was generally not incompatible with attempts to cure the body using natural and logical methods.

Contemporaries of seventeenth- and eighteenth-century Canada left the impression that the population and country were healthy. Although the harsh climate faced by the settlers contrasted sharply with that of the mother country, a protective and even purifying quality was ascribed to the cold temperatures. In 1664, Pierre

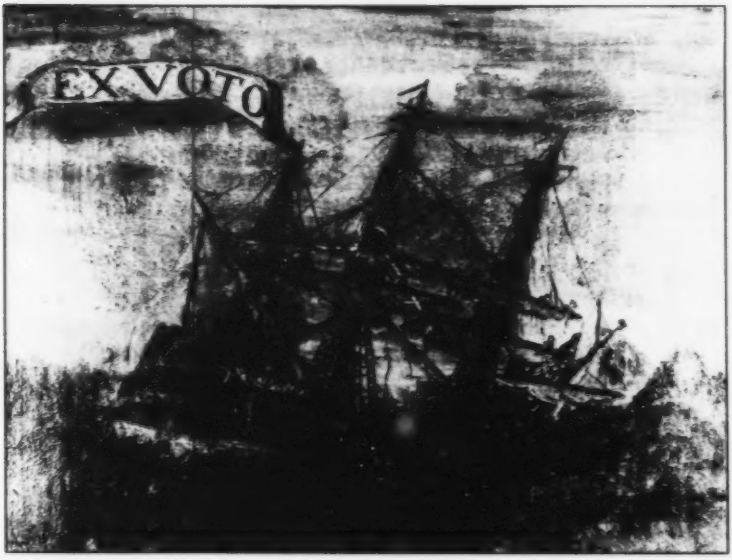


Figure 1. *The shipboard conditions on an Atlantic crossing often fostered the development and spread of disease. The colonies of New France were exposed several times to epidemic diseases brought in by ships. Paul Beaucourt,* Ex-voto: Un navire dans la tourmente, *circa 1738. Musée de l'Hôtel-Dieu de Québec. Photo Denis Ross.*

Boucher reported that "the air here is extremely healthy at all times, although particularly so in winter. Diseases are rarely seen in these parts."[2]

If such simple accounts from the period were only considered, the overall picture of the state of health of the colonists during this period would be seriously misrepresented. The living conditions were comparatively better than those in France, but Canada was not safe from diseases nor was it spared epidemics.

Most contagious diseases were introduced from external sources, primarily by ships from Europe or by individuals from the English colonies to the south. On lengthy Atlantic crossings passengers and crew endured unsanitary conditions and inadequate diet, which provided ample opportunity for the incubation and spread of disease.

The deplorable hygienic conditions in the colonies, particularly where populations were more concentrated, also fostered the spread of disease. The lack of sanitation that characterized the urban centres of France during the "ancien régime" also reigned supreme in those of New France. Attempts to improve public hygiene were inadequate, and the fact that identical regulations were periodically reissued suggests that people paid little attention to them. The Lieutenant General of the Provostship of Québec reported that a "stench which infects the air and causes dangerous diseases" permeated the streets of the city.

The Great Epidemics

During the seventeenth and eighteenth centuries, the colonies were struck by many epidemics. The most frequent included smallpox, measles, whooping cough and unspecified "fevers."

Smallpox was the most dreaded and most deadly of these epidemics. It reached epidemic proportions on at least five occasions in eighteenth-century Canada. During 1702 and 1703 alone it killed over a thousand people, or about eight per cent of the population. Thirty years later it struck again with devastating effects. On both occasions, the mortality rate was higher than the birth rate. This represented a tremendous loss for New France which depended primarily on increases within its own numbers for growth.[3]

Epidemics of fevers, often brought in by ships, also killed many of the colonists. In 1687, for example, measles and "purple fever" (probably typhus) caused close to 500 deaths.

Other epidemics, unidentified by the people at the time, such as those which occurred in 1699, 1715 and 1731, were also responsible for a large number of deaths.

Non-Epidemic Diseases and Injuries

Non-epidemic diseases are not nearly as well documented. They were part of everyday life and often affected only a few people in any given area. Also, ailments during this period were generally identified in terms of their symptoms rather than their causes. Any attempts at precise identification of illnesses afflicting people in the seventeenth and eighteenth centuries were hampered by a limited knowledge of physiology and by the rudimentary investigative instruments. However, some contemporaries of the period left enlightening accounts, which provide some information on the health problems faced by the colonists. Governor Denonville noted the recurrence of such complaints as scrofula (or king's evil, so called because it was supposedly curable by the touch of the reigning monarch), particularly among the Indians; the presence of worms, which he qualified as "the commonest ailment"; and diarrhea, which was difficult to cure owing to the "nature of the country" or lack of medicines. To this list he added rheumatism and "cold gouts," resulting from falls into streams during the cold season, and hernias, which occurred frequently among the colonists.[4]

In 1728, Doctor Michel Sarrazin noted that pleurisy, flux (diarrhea) and scurvy had been the most common ailments during the preceding winter. Ten years later the head of the Hôtel-Dieu Hospital in Québec City wrote that chancres and toothaches frequently afflicted the colonists.[5]

Occurrences of venereal diseases were also recorded. The Swedish explorer Pehr Kalm made a note of them in 1749, and Dr. Jean-Baptiste Ménard cared for a number of cases of virulent gonorrhoea in 1795 and 1796. However, it was the famous "Baie Saint-Paul disease," an unusual form of syphilis striking large numbers of people between 1774 and 1786, which attracted the

Figure 2. *Portrait of Michel Sarrazin (? – 1734), from an original kept in France. In addition to medicine, New France's most famous doctor was interested in botany, zoology and mineralogy. Some doubt has been expressed as to whether the subject of this portrait is really Michel Sarrazin. Musée de l'Hôtel-Dieu de Québec. Photo Denis Ross.*

attention of the authorities. In 1785, somewhere between 1,000 and 2,000 people, or about one per cent of the Canadian population, were stricken with the disease.[6]

Although the residents of the colony were afflicted by the same diseases found in the mother country, some ailments seemed more common in Canada. These included diseases of the respiratory tract, afflictions of the lungs, and rheumatism. The colony's climate undoubtedly contributed to the spread of these ailments. The cold also meant that chilblains were common.

Accidents, wounds and the physical disabilities resulting from them were also among the dangers that lay in wait for the early Canadians. Wars with the Indians and the English provided their share of casualties.

A Doctor Notes...

Although few documents on disease morbidity exist from the time, the observations of Dr. Jean-François Gaultier are insightful. He systematically recorded the most frequent diseases that occurred between the months of November 1742 and September 1746 and related them to weather conditions, agricultural production and the state of the vegetation.[7]

Fevers were the most common illnesses afflicting the colonists during this brief period. They were brought in primarily by ships and could quickly reach epidemic proportions, as was the case during the fall and winter of 1743–44. These fevers were deadly; if Gaultier's figures are reliable, for these two years alone fevers were responsible for 600 to 800 deaths.

Illnesses affecting the respiratory tract (whooping cough, pneumonia, pleurisy, colds and other ailments) were commonest during the cold seasons. However, the number of deaths caused by these diseases was relatively insignificant. Gaultier reports that in 1745 pleurisy and parapneumonias "did not even prove troublesome except for the very elderly."

Gaultier further records cases of jaundice and mumps as well as "stomach flux" and dysentery. The latter two ailments appeared to reach epidemic proportions in the summer of 1744, and the doctor notes:

> There was also a great deal of diarrhea which was accompanied by very sharp gripping pains. These flux were epidemic, began in the month of June, and often developed into dysentery. They were always accompanied by fever and took the lives of many people. The temperature of the air which prevailed there may have been a causative factor because the diseases were universal and rich and poor alike were afflicted. Another contributing factor may have been the strawberries and raspberries which were eaten before they were perfectly ripe...[8]

Observations made in Brittany around the same time as Gaultier was writing permit a comparison of colony and mother country with respect to type and incidence of disease. The ailments described for both groups are similar, although the inadequate identification, description and classification of diseases at the time may account for some of the similarities. The Canadian population diverges from the French mainly in its relative absence of deadly endemic diseases and, with few exceptions, its low mortality from epidemic diseases. Also, unlike in Brittany, the growth of the colony during a crisis period was checked but not jeopardized. In fact, except on only a few occasions (1703 and 1733), the number of deaths in the colony did not exceed the number of births. Generally introduced from outside the colony, epidemic diseases were not related to shortages of provisions as was often the case in Europe.

Better living conditions, a more balanced diet, a less concentrated population, a healthier climate and a more advanced hospital and medical infrastructure were factors that partly explain the better health enjoyed by the colonists.[9]

The similarity of diseases in Canada and the old country nevertheless encouraged the establishment of an approach to medical care resembling that of the mother country.

The Medical Profession

Legal Structure

During the seventeenth and eighteenth centuries the medical profession was composed of three principal groups: doctors, surgeons and apothecaries. These groups formed a hierarchy with doctors at the top.[10]

Doctors at this time were few in number and enjoyed the benefit of a university education and the status and prestige it gave them. Their training and their social status influenced how they practised medicine. They taught, prescribed therapies, medication or diets, and supervised surgical operations but did no manual work. Given the cost of their treatments, the doctors' clientele was primarily urban and drawn from the middle classes and the aristocracy.

In seventeenth-century Europe surgical practice was in the hands of the unskilled and uneducated. A surgeon-barber performed the tasks of a barber as well as surgical operations. It was not until the mid-eighteenth century that the two occupations were to be legally separated. Unlike the university-educated doctors, surgeons served an apprenticeship. Their practice was confined to the treatment of external afflictions and wounds: lancing abscesses, letting blood, applying leeches, cauterizing, dressing wounds and fixing fractures and dislocations.

Apothecaries were at the bottom of the hierarchy, even though a guild had represented them in France since the end of the fifteenth century. Neither profession nor skilled trade, the preparation and dispensing of medicinal compounds was considered a business enterprise.

During the eighteenth century, however, this medical hierarchy began to change. Social and scientific recognition of surgeons rapidly increased throughout the period and, in 1756, the Edict of Compiègne raised surgery to the status of a liberal art in France. Instruction in surgery became increasingly refined, its techniques increasingly sophisticated, and the distinction between barber and surgeon more pronounced. As well, the practice of pharmacy began to be separated from that of medicine.

In Canada, the differentiation and professionalization of medicine, surgery and pharmacy were more subtle. Only a few doctors of medicine practised in the colonies during the seventeenth and eighteenth centuries, and of those, most were by no means accessible to the population at large. Medical costs recorded as liabilities in the accounts of Québec City residents from 1690 to 1759 reveal that it was not routine to consult a doctor. In fact, only six references to doctors may be found compared with almost two hundred for surgeons. Recourse to the services of a doctor also seemed reserved for the wealthiest; only one artisan's account book records a doctor's visit. Michel Sarrazin, the most famous doctor in Canada, who practised more than 40 years, is mentioned only in the inventories of the Governor of Trois-Rivières and of a Québec City merchant. During the French régime, most people apparently did not have access to a doctor except through hospitals served by the King's physician.

There were also few apothecaries in the colonies and they lived in towns. The most important apothecaries in Québec during the French régime, the Brother Boussat and later the Brothers Boispineau, had ties with the Jesuits' dispensary.

Estate inventories and medical reports, however, indicate that medicines were primarily supplied by surgeons. The surgeons, in fact, were chiefly responsible for the practice of medicine in the colony and did not hesitate to perform a number of services normally provided by doctors and apothecaries.

As in France, up until the mid-eighteenth century, many surgeons in the colonies were also barbers. In 1706, the wigmaker Jean-Baptiste Cardinet hired François de la Minade as apprentice surgeon. One of his former apprentices, Charles Prieur, who had learnt the trade of "wigmaking and shaving" from him, was hired as a surgeon in 1716 and 1717! Surgeons' accounts indicate the two duties were occasionally combined. The surgeon Simon Soupiran from Québec City, for example, requested "fifteen months of shaving at 10 francs a year contracted with Sieur Rageot and his family for the shaving year" from the notary Rageot about 1714. Four years later the estate of master baker Charles Remonneau owed him the sum of 25 livres "both for medicines and shaving."[11]

After the conquest by England there were many more apothecaries and doctors in the colonies. However, aside from a few doctors who were truly qualified, most individuals who called

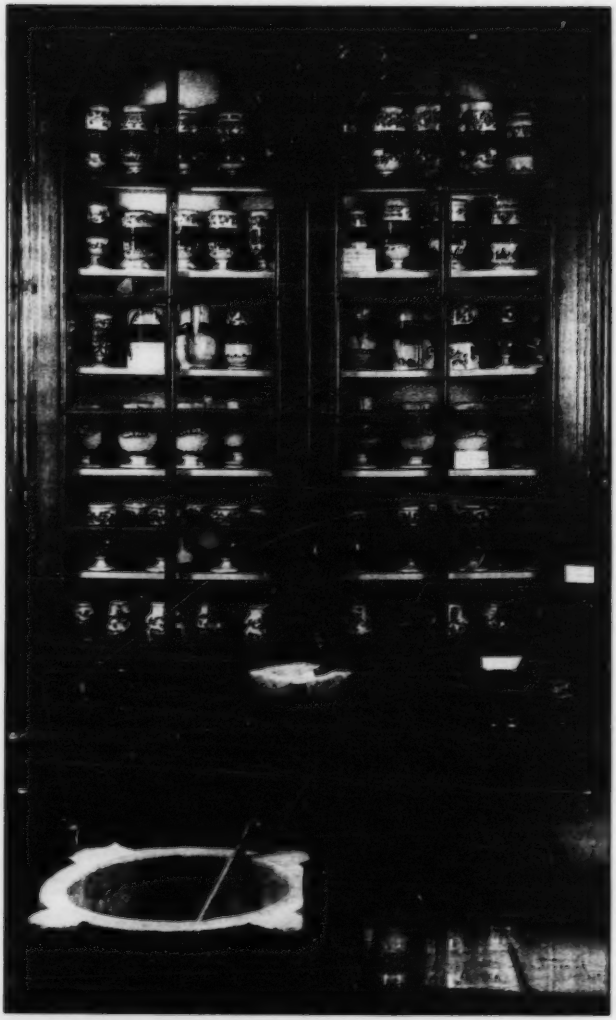


Figure 3. *Earthenware pharmacy jars from the Jesuits' dispensary in Québec. They were donated to the Hôpital Général de Québec in 1787 by the Révérend Père Glapion, Superior General of the Jesuits in Canada. Note that the labels on these jars post-date the gift. Musée de l'Hôpital Général de Québec. Photo Denis Ross.*

themselves doctors or apothecaries were only common surgeons. That is, in actual practice, there was almost no distinction between doctors, surgeons and apothecaries. In 1786, Dr. Christopher Diller stated through his lawyer that "it is a well-established custom that whoever is a doctor in this country is also a surgeon and apothecary and vice versa; these three professions are considered as one in this province; the laws created in this country have not yet dictated to the contrary."[12]

Up until at least the middle of the eighteenth century, surgeons were theoretically under the control of the Lieutenant of the King's First Surgeon, an office created in Canada in 1658 and abolished by the Court in 1745 when it was found to have limited value. This office awarded qualifying papers to candidates, assessed practitioners and exposed the unqualified or incompetent. In practice, it intervened rarely. Its activities appeared to concentrate primarily on the production of medical reports for the law courts, particularly in cases of injuries or suspicious deaths. In close to a century, direct or indirect intervention by this office to control the medical profession through the courts was confined to two cases. Surgeons, moreover, were not organized in a guild or brotherhood and did not have to meet any qualifying standards. This situation changed little after the conquest by England. No structure, agency or regulation governed, controlled or united these practitioners until the 1788 ordinance, which required all members of the medical establishment to take an examination in order to obtain a licence to practice medicine.[13]

The world of midwifery constituted an activity more or less formally included in official medical practice. The Church exercised some control in this area. In its *Rituel du diocèse de Québec*, published in 1703, the Bishop of Québec stipulated that midwives would be chosen by the "most virtuous and most honest" women in the parish, gathered together by the parish priest for the occasion. The midwives were obliged to swear an oath and receive instructions for emergency baptisms of newborn babies. This form of baptism involved baptismal purification only and was to be performed by the midwives if a baby was in danger. In taking charge of instructing the midwives in such a way the Church was simply doing its duty to the immortal soul of the infant.[14]

The State, however, had long remained indifferent to medical practice with respect to childbirth and did not intervene directly until 1727. A midwife, Madeleine Bouchette, who had been trained at the Hôtel-Dieu de Paris, was sent to the colony by the French authorities. She was paid an annual salary of 400 livres to provide a service to the poor, expertise during court proceedings, and instruction in birthing techniques for the midwives in the colony, overseeing their activities.

As was the case in Europe at the time, obstetrics was a field in which doctors and surgeons were rarely involved. Surgeons, in fact, only intervened in difficult cases. Throughout the eighteenth century, however, it was evident that a masculine presence was becoming increasingly more common in the world of childbirth. Some surgeons earned the reputation of being skilful midwives. This was true of François Lajus, a surgeon from Québec, who practised from 1744 to 1799. Nevertheless surgeons themselves never hesitated to call in a midwife when their own wives were in labour.

This progressive intervention by the medical world in obstetrics was also reflected in "midwifery courses" offered by surgeons toward the end of the eighteenth century. As with other medical personnel, the 1788 ordinance obligated all those practising obstetrics in the cities of Québec and Montréal to take an examination and obtain a licence; it marked a decisive turning point in the control of the practice of midwifery by the medical profession.[15]

Minor though it was, state intervention in the area of colonial medical practice assumed different forms. The distribution of medicines to the poor during the French régime reflected this involvement. In 1687, the Governor and Intendant of New France reported that this action proved to be a "great help and did a great deal of good." It was to continue up until the conquest by England.

The State also provided funding for hospital institutions and financed the distribution of assistance to the most needy. It likewise took care of the insane as well as abandoned children. The appointment of doctors and surgeons affiliated with hospital services was also the responsibility of the State. Although such services were discontinued at the time of the conquest, they were progressively reinstated in subsequent years.

As can be seen, few measures were taken to regulate the practice of medicine. In 1710, a decree prohibited surgeons who had served on ships and foreigners from practising in the colony. Forty years later, legislation was passed giving foreign surgeons licences to practise, once they had taken an examination. The 1788 ordinance further applied this requirement to all members of the medical establishment; only military men and university graduates were exempt.[16]

Medical Personnel

The number of medical professionals in the colonies rose steadily but nevertheless lagged far behind the needs of the growing population. There were 19 practitioners in 1667, 26 in 1709, 41 in 1737, 79 in 1765, and 104 in 1788; however, the number of doctors, surgeons or apothecaries for every 10,000 residents stood at 48.5 in 1667, 16.1 in 1709, 10.2 in 1737 and a meagre 7.2 in 1788.[17]

Medical personnel were distributed unevenly over the region. In the eighteenth century the number of health practitioners per 10,000 residents was four times higher in the city than in the country. Also, the urban centres retained the most competent and experienced members as well as the few doctors and apothecaries there were in the colonies.

Ethnic Origin of Medical Practitioners (1667–1788)

ETHNIC ORIGIN	1667	1681	1695	1709	1723	1737	1744	1751	1765	1774	1788
FRENCH	1	22	29	24	18	26	25	35	59	48	36
CANADIAN			3	2	10	13	10	9	6	6	5
BRITISH					1	1	1	0	9	10	31
ITALIAN						1	1	1			
AUSTRIAN							1	1	1		
GERMAN											29
SWISS									2	1	1
PORTUGUESE									1	1	
POLISH											1
OTHER									1	1	1
TOTAL	19	22	32	26	29	41	38	46	79	67	104

In rural areas the distribution of medical personnel was far from uniform. Some areas attracted and retained more practitioners than others. Many factors dictated the choice of location for a practice. Physical comforts and the number of potential clients were two very significant considerations. Well-established parishes such as Neuville, Château-Richer, Laprairie and L'Assomption were assured that one or several surgeons would be available as a matter of routine.

Even under British control, the French heavily dominated the Canadian medical profession until the American War of Independence (1775–83). This situation may be explained by the absence of significant immigration of English-speaking people to the region, by the settlement of demobilized French military surgeons and by the arrival of French surgeons from the American colonies, from St. Pierre and Miquelon, and even from London.

The American War of Independence, however, brought with it a large contingent of British and German military surgeons who settled in Canada. German surgeons predominated, constituting over a quarter of the medical personnel in Canada in 1788.

A significant trend became evident. The British settled primarily in the cities, while the Germans and French were heavily represented in rural areas. Although none of the three groups numerically dominated the medical profession, the British were initially held in the highest esteem and enjoyed the most prestige.

The German surgeons had a bad reputation overall and their professional competence was questioned. The 1788 ordinance appears to have been enacted primarily as a means of controlling this group. An examination of the licences to practice that were granted at that time supports this impression. Out of fifteen German "doctors" who requested such a licence, six were qualified only to let blood, extract teeth and work as apothecaries.

In 1786, the average age of francophone practitioners was 55 years; that of German practitioners, only 35 years. This fact undoubtedly accounts for the general impression of incompetence associated with surgeons of German origin.

The above overview of the composition of the Canadian medical profession underscores an important phenomenon, namely the small number of practitioners born in Canada. While one third of the members of the medical profession in the years between 1720 and 1740 were Canadians, they represented only eight per

Figure 4. *Portrait of Pierre de Sales Laterrière (? – 1815). In 1789, he became the first Canadian-born Francophone to graduate in medicine from an American university. Archives nationales du Québec à Québec. Ministère des Affaires culturelles, Québec, Fonds Morisset, 1279-A-3.*

cent of the medical practitioners in 1765 and less than five per cent some 23 years later. Up until the nineteenth century, the medical profession was dominated by Europeans. The practitioners, along with their knowledge and techniques, were thus imported from the old country.

While there were a number of dynasties of surgeons in the urban centres, such as the Benoîts, the Forestiers, the Lajus, the Beaudoins, and the Soupirans, they were the exception to the rule. This trade was rarely passed down from father to son and very few apprentices were trained in Canada. The transfer of knowledge on Canadian soil and, consequently, the advent of an official indigenous medical practice proved to be fairly limited.

A number of Canadian practitioners went to France for the training that the colony could not offer. Such was the case for Gervais Beaudoin, a surgeon's son who was born in Québec in 1686. He practised for four years in the Rochefort hospital as an apprentice surgeon before acquiring further training in other hospitals. Similarly, Claude Benoît, the son of a Montréal surgeon, went to complete his training in the hospitals in Paris.[18]

Little is known about the training received by practitioners born in France. While some learnt their trade by serving an apprenticeship, others graduated from university. This was true for Bernard Duberger, a surgeon from Saint-Thomas-de-Montmagny, who studied at the famous medical school in Montpellier. Most

French surgeons who settled in Canada were sons of members of the medical profession; many also had military experience. In 1695 this applied to at least 44 per cent of them.

It is difficult to identify the place held by surgeons and doctors in the daily lives of the early Canadians during this period. However, such documents as estate inventories and their references to debts for medical attention or medicines, and also accounting records, do allow the number of consultations with practitioners to be accurately ascertained. In Québec, for example, during the period from 1690 to 1789, 23 per cent of the estate inventories included such references. This suggests that recourse to the services of medical professionals was fairly routine.

The account books of practitioners and records for medical supplies that have survived suggest that all social groups consulted medical practitioners: day labourers, merchants, artisans, civil servants, the bourgeois. However, it is difficult to know with any certainty if the truly needy consulted or had access to a surgeon. Medical services could clearly be expensive. Over a five-year period, for example, the family of the Québec merchant André Bouchard accumulated a debt of 1,046 livres owing to the surgeon Eli Laparre. More importantly, the family's regular surgeon was not this gentleman at all but his associate Louise-Phillippe Badelart! It is thus likely that recourse to a surgeon was rare or even impossible for the less privileged, and medical care provided for domestic servants was generally the responsibility of their employer.

The sick rarely consulted a doctor and preferred to see a surgeon, that is, the more accessible practitioner. In fact, while people like Michel Sarrazin or Jean-François Gaultier acquired the reputation of being excellent doctors, their daily activities seemed to leave little opportunity for extensive private practice. They held a wide variety of offices. They were to be found as counsellors within the Superior Council. They acted as doctors at hospitals, gathered plants or performed other scientific activities, corresponded with members of the Académie royale des sciences [the Royal Academy of Sciences], and in short, became highly visible individuals whose opinion on very varied subjects was often solicited by the authorities.

Like medicine today, medicine at that time had its limitations and its failures. Court proceedings sometimes ensued. There were charges of negligence, such as those faced in 1786 by the Montréal

surgeon Alexandres Serres, a graduate of the Académie royale de chirurgie [the Royal Academy of Surgery] as well as charges of libel, such as those brought by the nailsmith Isaac Lemieux against the Québec surgeon Beaudoin a hundred years earlier. While members of the medical profession were considered to render a valuable service to society, they were clearly not exempt from criticism of their practice or their proficiency.

Encompassing both the world of religion and medicine, the hospital served both body and soul. It was the hospitals primarily that enabled the neediest in society and the population at large to receive health services and other forms of relief usually free of charge.

The Hospital Infrastructure

The spread of Christianity fostered the concept of hospitality. Flourishing in the Middle Ages, such hospitality essentially owed its origins to the philosophy of charity. As it gathered momentum, it assumed the form of institutions which brought together pilgrims and travellers first of all, then the sick and the destitute. From the seventeenth century onward, a significant network of hospitals gradually emerged in France, accompanied by the creation of new religious orders who maintained them. Two main types of hospitals could be distinguished: the general hospital and the *hôtel-Dieu* (principal hospital, literally "mansion of God").

General Hospitals

Originally conceived as a place to confine the poor, the general hospital dates back to 1657. At this time, the established social order considered begging and vagrancy a potential threat, and the solution to such an ill was to ensure that everyone was put to work. The general hospital was therefore intended to function also as a workhouse. It soon became evident, however, that this approach had failed. The general hospital opened its doors to those in need of care—the disabled, the aged, prostitutes, abandoned children, the mentally ill and the destitute.[19]

General hospitals were established in New France in response to similar stresses. From 1682 onward, the war with the Iroquois, epidemics, the decline of the fur trade and poor harvests had increased the number of needy people. By 1688 many of the colonists were in dire straits. The sovereign council set up offices in Québec City, Trois-Rivières and Montréal to deal with the poor. It thereby created the first social security system in the country.

Primarily administered by laymen, these offices for the poor respected the model established in France during the sixteenth century. They were designed to help people in need by providing assistance or by finding work for them. Such agencies continued to operate in Québec City until 1692, when they were replaced by the general hospital. The general hospitals, while serving well the chronically ill, the disabled and the aged, provided little assistance

to other needy people. They also failed to prevent begging and, it was said, even encouraged idleness. Offices for the poor were reestablished, notably in Montréal and in at least one rural parish, Sainte-Famille on the Ile d'Orléans. However, for reasons that remain unknown, this form of assistance was discontinued around 1700.[20]

The general hospitals quickly proved indispensable. Founded in 1692, the Montréal General Hospital was initially administered by hospital brothers known as the Frères Charron. In 1747, Madame d'Youville and the Grey Nuns assumed responsibility for its operation.

In 1692, the King granted letters patent for the creation of a general hospital in Québec. Monseigneur de Saint-Vallier, Bishop of Québec, provided financing for the institution. Initially managed by directors and administrators who were primarily laymen, it passed into the control of the bishop in 1698. Sisters from the Hôtel-Dieu de Québec had taken charge of the hospital in 1693. An insane asylum for women and one for men were added to this institution in 1717 and 1722, respectively. Accommodation for women "sinners" was added next and, during the same period, the hospital took in disabled soldiers who contributed their half-pay. A new wing was constructed in 1738 to provide a home for them. At the end of the French régime, a report noted that the general hospital, unlike the *hôtel-Dieu*, specialized in the care of "army pensioners, cripples, the aged, the handicapped of both sexes, the insane, and girls and women of ill-repute."[21]

Hôtels-Dieu

The mission of the *hôtels-Dieu* was to provide care for the truly sick person. Relief of suffering was, however, given to both body and soul. Indeed, fundamental to the operations of these institutions was the salvation of souls: a "period of hospitalization should be a time of grace, or at least of moral regeneration." The *hôtels-Dieu* were also "places of redemption" for the caregivers. They were generally founded and directed by the Church and supported by the State. Their architecture, operation and ideology were the result of a long tradition of hospital care. The regulations and constitutions of French religious communities also specified that *hotels-Dieu* be established in the colonies.

Figure 5. *Nuns caring for both the body* (right) *and the soul* (left). *Washing a patient's feet* (centre) *is a symbolic act recalling Mary Magdalene washing Christ's feet. Les Augustines, Thibermont (Neuville-les-Dieppe), France. Archives du Monastère de l'Hôtel-Dieu de Québec (photographic copy of original painting).*

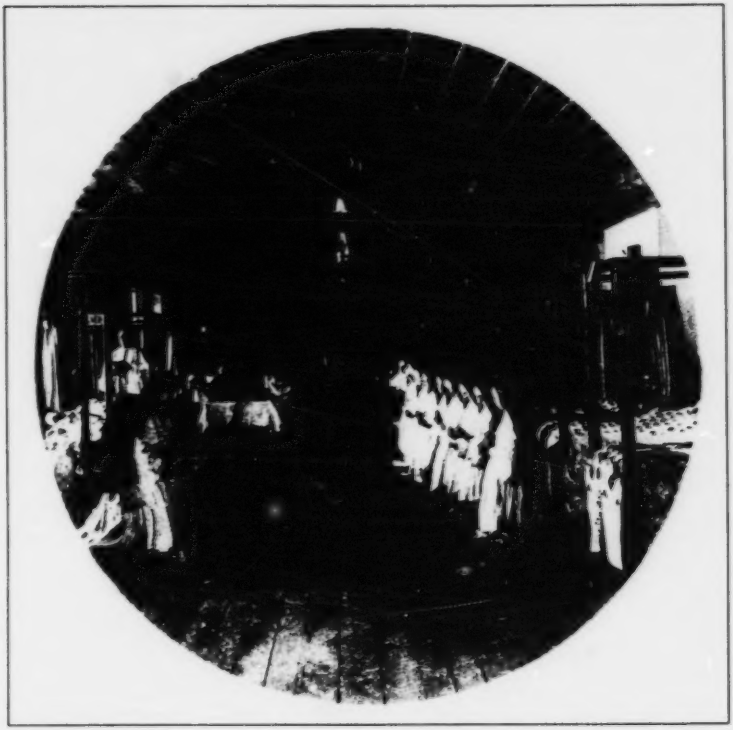


Figure 6. *A ward in the Hôtel-Dieu de Québec, 1877. The institution's rules of operation remained almost unchanged from the seventeenth century to the twentieth. Archives nationales du Québec à Québec, Fonds Louis-Prudent Vallée, GH-270-145.*

In 1639 the basis for the foundation of the first hospital north of the Rio Grande was provided by the arrival of three Misericord of Jesus nursing sisters from Dieppe. The *hôtel-Dieu* in Dieppe from whence they came was established in the eighth or ninth century and taken over by the Sisters of the Misericord of Jesus in the twelfth century. Madame de Combalet, the niece of Cardinal Richelieu and the Duchess of Aiguillon, was the founder of this new hospital. It was to serve the Indian people, "assisting them in their conversation and their salvation." In this evangelizing spirit, the nursing sisters first settled in Sillery, in the heart of a reserve created for the Indians by the Jesuits. Their stay was to be

shortlived since the mission was soon deserted because of the war with the Iroquois nations. In 1644, they returned to Québec and that year marked the beginning of the construction of the *hôtel-Dieu*. Diverted from its original mission, the *hôtel-Dieu* no longer admitted more than a very few Indians. They represented less than four per cent of admissions at the end of the seventeenth century and less than one per cent in 1744.[22]

In 1648, there were about nine sisters and approximately ten beds in the hospitals. By the middle of the eighteenth century, there were forty beds distributed between two wards—one for men and one for women—and several private rooms for officers and priests. The hospital was destroyed by a disastrous fire in 1755. Once reconstructed, however, it was occupied by English troops from 1759 to 1784.

Through funding provided by a Madame de Bullion, a *hôtel-Dieu* was also founded in Montréal by Jeanne Mance. Its construction began in 1644 and nursing sisters from La Flèche took it over in 1659. In 1734, the hospital staff consisted of forty sisters and six domestic servants. The sick at that time "commonly totalled 35 or 40 of both sexes and most were treated free of charge."[23]

Lastly, in 1697, through financial assistance again provided by Monseigneur de Saint-Vallier, Bishop of Québec, the Ursuline Sisters of Québec City founded a *hôtel-Dieu* in Trois-Rivières. The assistance given by the famous prelate was for the upkeep of six beds. Soldiers and habitants were admitted to this institution. In 1750, after six of the sisters had been lost in an epidemic the previous winter, their survivors implored the authorities to establish a hospital elsewhere so that they might cease to "perform hospital duties." Intendant Bigot merely retorted that they still had nine sisters left and that this number should "suffice for such a small hospital with one room and ten beds." At the end of the eighteenth century, the explorer Isaac Weld noted that there were two wards in this institution, each containing twelve or fourteen very good beds that were kept extremely clean.[24]

The hospitals relied on the services of doctors and surgeons who were generally appointed and paid by the State. They also relied on the services of apothecaries, selected essentially from among the sisters, as well as on a staff composed of apprentice-surgeons, assistant apothecaries, nurses, serving men and women,

and domestic servants. The primary role of the sisters was the care of the sick, and their work was controlled by regulations outlining the duties they were to perform.

Hospitals, and *hôtels-Dieu* in particular, had an important place in early Canadian society. Between June 1689 and July 1759, 41,344 people or an average of 389 per year, benefitted from the care of the nursing sisters of the Hôtel-Dieu de Québec. The wards of this institution, moreover, admitted patients from all walks of life: the day-labourer and the tradesman, the poor and rich alike. In 1718, the Benedictine Dom Georges-François Poulet noted that "it is a custom in this country that everyone is brought here in illness, the great, the rich, and all the clergy, owing to the comforts provided by the doctor and the remedies available here through the very special care that the sisters give the sick."[25] Similarly, in 1731, Governor Beauharnois and Intendant Hocquart observed that "the Hôtel-Dieu not only admits soldiers and poor colonists, but also the middle classes from this town [Québec], and well-to-do colonists who are one and all accustomed to being taken to the hospital when they are sick."[26] Besides a varied diet, the sick could receive medical and surgical attention, usually free of charge. In addition major operations were always performed at the Hôtel-Dieu de Québec.

The sick were apparently well cared for in the *hôtels-Dieu*. Between 1689 and 1698, 92.5 per cent of the men and 95.8 per cent of the women cared for by the sisters at the Hôtel-Dieu de Québec survived. In the year 1744, there were 53 deaths out of 657 hospitalized patients, or eight per cent in all.[27]

However, not all the sick were immediately admitted to hospital. The 1688 regulations governing the operations of the Hôtel-Dieu in Montréal [Coutumier et Petites règles] stated that those afflicted by "contagion, leprosy, syphilis, bloody flux, tinea, intractable or malignant gall, paralysis, or scrofula," as well as the "totally blind, the mutilated, the insane, epileptics, pregnant women, children under seven years, and other illnesses considered incurable" should be excluded from its care.[28]

There were similar regulations in Québec City. The 1631 constitution of the Hôtel-Dieu de Québec specified:

> The nursing sister will admit no sick person without the seal and consent of the Mother Superior. She must ensure the individual is visited by a doctor or a surgeon if there is any question of a dangerous disease such as

> scrofula, the disease named "mal de Siam" [yellow fever], leprosy and anything else spread by contact, or any basic madness, because in such an event admission must not be granted.[29]

The 1666 constitution also lists patients afflicted by cancer and epilepsy (falling sickness) among those to be excluded.

Epidemics and the arrival of ships with sick passengers created many problems. Disregarding their regulations, the sisters admitted people with infectious diseases. In 1665, for example, 130 sick people from ships were admitted to the hospital in one day alone. The same scenario recurred in 1685. On 25 October 1740 during the epidemic brought in with the ship the *Rubis*, Sister Duplessis de Sainte-Hélène wrote: "The halls, attics, parlours, and rooms annexed to the Hôtel-Dieu are all full and we can scarcely move between their beds."[30]

Many of the sick came for treatment at the Hôtel-Dieu de Québec without necessarily being hospitalized. One sister reports, "many people... come to this hospital to have minor wounds dressed." The sisters also provided medication prescribed by a doctor or staff surgeon free of charge for the poor in the city and the country.[31]

As institutions directed by the Church and supported by the State, hospitals played an essential role in health care. The neediest people had access to medical care through them. Whether provided at the hospital or elsewhere, this medical assistance was typical of European medicine of the period and reflected truly time-honoured traditions.

The practice of medicine was not confined to the hospitals and the medical profession. Parallel practices offered the sick an alternative.

Parallel Practices

As in Europe, two types of medicine co-existed in Canada. Officially recognized medical practice sometimes yielded to various parallel practices that were often well established and popular with the people.

Bone Setters

Bone setters, and bone joiners who specialized in dislocations, were often consulted. In 1852, Dr. Joseph Painchaud noted that a Charlesbourg family, the Beaumonts, appeared to have practised the bone-setting art for generations since the French régime. In 1780, during a violent argument, a carpenter named Paul Thibodeau had kneed the wife of Jean Morar a few times in the stomach. The pain caused her to consult the "good wife Beaumont," who, after giving Madame Morar "a couple of quick pats," declared that "a section of the stomach was dislocated and she would suffer from it for a long time." There is also a reference in the 1781 accounts of the Hôtel-Dieu de Québec to the effect that "the good wife Beaumont" received six livres "in recognition of her services to the public."[32]

The Clergy

The parish priests were frequently called upon to act as doctors because of their education and presence in areas where there were no medical practitioners. In this role, the authorities often assigned to them the task of distributing medicines. For example, at the end of the eighteenth century, a parish priest named Corbin provided the people with a variety of medicines reputed to be comparable to those of the best surgeons.

During the syphilis epidemics that broke out in the parish of Baie-Saint-Paul (Charlevoix) at the end of the eighteenth century and which then spread throughout the region, the clergy responded to an appeal from the authorities and distributed medicines and instructions for their use. Some of the clergy, however, vehemently opposed the role the colonial authorities expected them to play.

This was particularly true of the priest Ménard from Chambly. His main argument was that the clergy lacked medical knowledge; he wrote, "nineteen out of twenty of [them] ... don't understand such matters in the least." He was afraid that the priests would confuse the symptoms of a number of diseases with those of "Baie Saint-Paul disease" and dreaded the accidents and complications that might possibly arise. The booklet that accompanied the medication sent by the government did not warn of this. In spite of Ménard's opposition, the clergy generally cooperated in the distribution of the medication.[33]

Quacks, Empiricists and Sorcerers

Individuals from various backgrounds also dabbled in medicine. A notable example was the Breton, Yves Phlem, who settled in Sainte-Anne-de-la-Pérade in 1727. His reputation as healer was known throughout the colony. People came to him from far and wide and stayed until cured or dead! In 1737, the authorities forbade him to practise medicine without first undergoing an examination before the doctor Michel Sarrazin and obtaining a certificate confirming his competence. There were also other individuals such as Jean Doyon, who in 1748 received four livres in payment for "several bloodlettings performed by him on the natives of Panagamké," or one Jacques Houde, a colonist in the parish of Saint-Antoine who represented himself in a document as a surgeon even though he had no qualifications. The title of surgeon was rarely misused although several individuals were prosecuted for applying it without the right. In 1716, Pierre Duverger had to pass an examination and obtain a certificate if he wished to continue to practice surgery and to be called a surgeon.[34]

Magic and sorcery were also practised. At the end of the eighteenth century, a woman from Pointe-Lévis had a fit of convulsions and subsequently remained in a "disturbed" mental state. Her family was unable to understand her behaviour, believed she was possessed by a devil and asked the parish priest to exorcise it. Faced with a refusal from the priest, and then the bishop, they resorted to the services of a woman who was reputed to be a magician. The sick woman received cruel treatment at the hands of this magician:

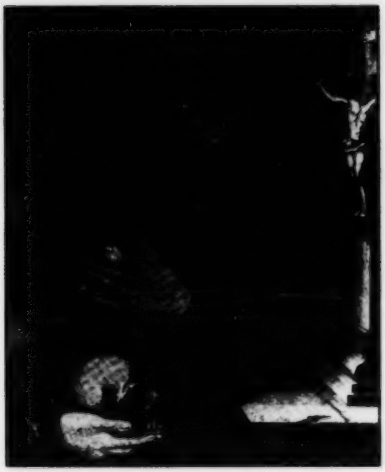


Figure 7. *Frère Didace Pelletier (1657–1699) of the Recollet mission in Trois-Rivières. Described by the artist of this engraving as dying "in the odour of sanctity," he became the target of popular devotion and the object of beatification proceedings soon after his death. Several miraculous healings were attributed to him. Engraving by Jean-Baptiste Scotin, eighteenth century. Archives du Monastère de l'Hôtel-Dieu de Québec.*

> [She] was thrown into a vat by four men and held there for four hours in a most violent and cruel way. She was released tormented and howling, having obtained no relief from the alleged sorceress.[33]

Miracle Workers

In a society where the supernatural held a very important place, the population also turned to religion or to individuals who had the reputation of being endowed with special powers. Possessing "gifts," secrets or powers linked to sorcery, these miracle workers practised "cures." At the end of the seventeenth century, for example, such miraculous cures were attributed to the priest Didace Pelletier who died with a reputation of saintliness.

Vows, promises, offerings and pilgrimages were only some of the methods used by the sick in the hope of attracting divine intervention.

In Europe, pilgrimages were more than just a tradition. The Middle Ages saw thousands of pilgrims travel across Europe in search of redemption or a cure. Visits to famous sites such as Saint-Jacques-de-Compostelle in the north of Spain or Mont-Saint-Michel in northwestern France were part of a solid pilgrimaging tradition, which was to continue in the New World. A chapel erected in Sainte-Anne-de-Beaupré in 1658 remains the most

well-known destination for pilgrimages. The first cures were witnessed when an image of Saint Anne was enshrined in the chapel. From near and far the sick came seeking help. In 1665, Marie de l'Incarnation wrote that "the paralysed got up and walked, the blind became sighted, and the sick became well whatever illness afflicted them." Pilgrimages to this site continued throughout the centuries and persist today. In 1679, a surgeon from the Montréal region who instituted proceedings for payment owing to him for the extensive care he had given a sick woman was dismissed in court when the husband of the woman proved that she had been cured during a pilgrimage to Sainte-Anne-de-Beaupré and not, as the surgeon suggested, because of his treatment.[36]

As in Europe, the periods of epidemics greatly increased general piety and devoutness. Saint Roch, invoked in Europe during times of plague, was the object of special worship. In the colony, the worship of this saint was so common during epidemics that the chapel dedicated to him near the Saint-Charles River soon proved too small.

Therapies and Medicines

In the seventeenth and eighteenth centuries, clinical investigation procedures were limited. A practitioner did not have the full range of technical methods available today. The stethoscope and instruments for taking temperature and blood pressure were not to be invented or popularized until the nineteenth century.

Nevertheless, there were established procedures to help a practitioner make a diagnosis. A physical examination of the sick person was made, and the patient was questioned about the origin, significance and presumed causes of the illness. Medical history, lifestyle and living conditions were noted. Pulse rate and the appearance of the blood, stools and urine were also considered. Using this information, the practitioner made a diagnosis and prescribed an appropriate treatment. Occasionally consultations were conducted by correspondence.[37]

The theory of humours was the basis for medical practice at this time, although it had been regarded with some doubt since the beginning of the seventeenth century. The humours were the four bodily fluids — blood, phlegm, bile and lymph. According to this old theory, disease was the result of a qualitative or quantitative imbalance of these fluids, or humours. To restore equilibrium the practitioner had to rid the body of the excessive humours, using such methods as bloodletting, enemas and emetics. To improve the quality of the humours, he prescribed cordials that would fortify the blood. In some cases more extensive surgery might prove necessary.[38]

Surgical Procedures

The use of surgery was rapidly increasing during the seventeenth and eighteenth centuries. Knowledge of anatomy and physiology had steadily developed since the Renaissance. In the mid-sixteenth century, the publication of Andreas Versalius' anatomical drawings, unequalled in quality for the next two centuries, had given impetus to the study of anatomy. Also, the world of the infinitely small became accessible in the seventeenth century through the use

Figure 8. *Amputation of the forearm. Laurent Heister,* Institutions de chirurgie, *vol. 2 (Paris: P Fr Didot le jeune, 1771), plate 14. Library of the Séminaire de Québec, Ancien fonds. Photo Denis Ross.*

of the microscope. With it Marcello Malpighi identified blood capillaries and Anthony van Leeuwenhoek studied red blood corpuscles and spermatozoa.

However, despite significant advances in knowledge and techniques—advances that contrasted with the dogmatism of medical practice based on the theories of Galen and Hippocrates of ancient Greece—there were still major obstacles in conducting surgery. Measures to control infection were based on empiricism or sheer chance since there was no knowledge of its cause. Also, as arterial clamps had not yet been developed, hemorrhages were difficult to stop. More importantly, pain prevented lengthy operations from being performed; dexterity and quickness were essential

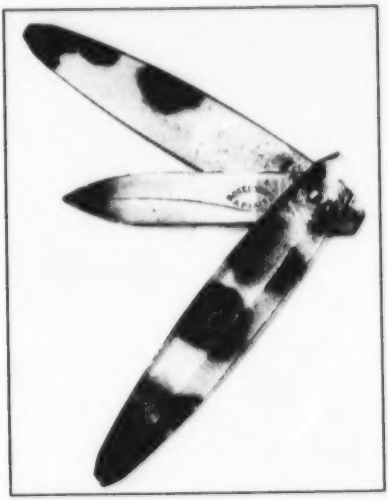


Figure 9. Lancet used for bloodletting. Musée de l'Hôtel-Dieu de Québec. Photo Denis Ross.

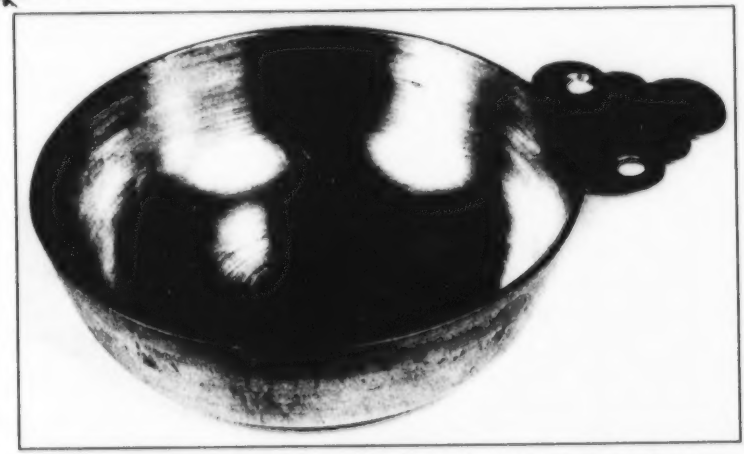


Figure 10. Basin to catch blood when bleeding patients. Hospitallers of Saint Joseph (RHSJ). Photo Denis Ross.

qualities for any good surgeon. While alcohol and opium-based products sometimes reduced pain, cries and suffering were ever-present.

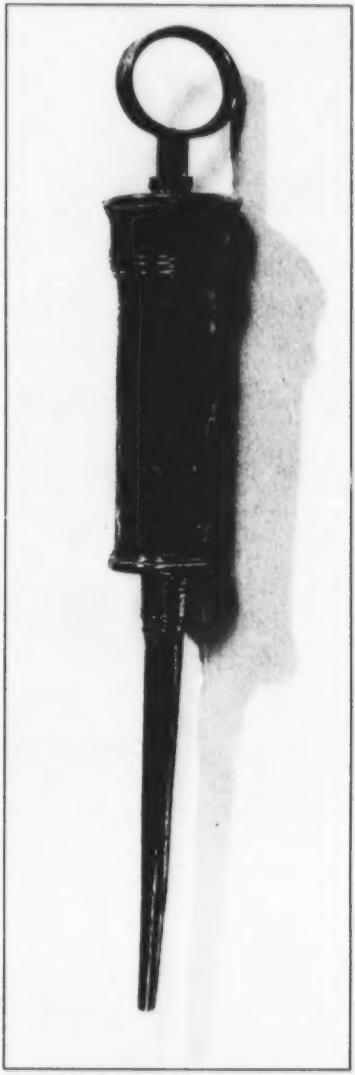


Figure 11. Syringe made of silver. Musée de l'Hôtel de Québec. Photo Denis Ross.

Despite these limitations, the scope for surgery remained tremendous. In the eighteenth century it was considered the "science which teaches how to recognize and cure diseases affecting the external human body, and treats all such diseases which require it for their cure by an operation by hand or by the application of topical remedies."

Phlebotomy, or bloodletting as it was known at the time, was performed by the surgeon and consisted of an incision in a blood vessel, usually on the arm or foot, to eliminate a small quantity of blood. It was seen as a preventative and curative measure. Sometimes, however, it was considered harmful and as such denounced by some of the people of the time, who protested against its repeated use. In 1744, Sister Marie-André Duplessis de Sainte-Hélène, a sister at the Hôtel-Dieu de Québec, attributed a great number of deaths and illnesses to "frequent and copious bloodlettings" by doctors.[39]

Another common surgical practice was the injecting liquids, with or without medicines added, into the bowels of the sick using syringes of various sizes. The presence of syringes itemized in estate inventories of both citizens and practitioners confirms the popularity of enemas.

Surgery was used in the treatment of tumours, wounds, ulcers, fractures and dislocations. A surgeon from Neuville, François Grégoire, tended one Morisset for a "wound on the leg bone called the Tibia from which a number of splinters had been removed between the beginning of May and the 14th of June [1702]." In 1748, the surgeon François Lajus received a sum of some 100 livres from the colonial authorities for removing a bullet lodged in the knee of a militiaman who had participated in a military expedition. He was also given a sum of 300 livres for having "dressed and treated St.-Lusignan when hit by a gunshot that by all appearances he received in the middle area of the left thigh."[40]

In 1700 the renowned physician Michel Sarrazin operated with success on Sister Marie Barbier de L'Assomption, affected with cancer of the breast.

In 1769, the surgeon Soupiran removed a polyp from the nose of a merchant from Québec City. A medical textbook of the time describes a nasal polyp as "a pulpy and fungous growth" that could only be removed by surgery, and goes on to give an account of its treatment which sheds considerable light on surgical practices in the eighteenth century:

> Before the operation, suitable preparation must be made. Sometimes the patient is bled first and then purged. He is administered diluent and emollient remedies; if there is a syphilitic or scurvied leaving, remedies to destroy these diseases are administered.
>
> To remove the polypus, the patient is placed on a chair, leaning a little backwards and his face is turned toward the sun. Fenestrated tweezers are placed as far forward in the nose as possible so that the polypus is between its two arms. They are then squeezed and gently twisted to extirpate it, and it is pulled out of the nose. If the polypus breaks, it must be pulled out piece by piece. If it drops into the throat, it must be pulled out through the mouth.
>
> Should bleeding occur after the operation, efforts must be made to arrest it by inserting a tent or a swab soaked in a styptic or covered with an astringent powder. The nostril is dabbed and plugged with the swab and pressure is firmly applied to the open artery.

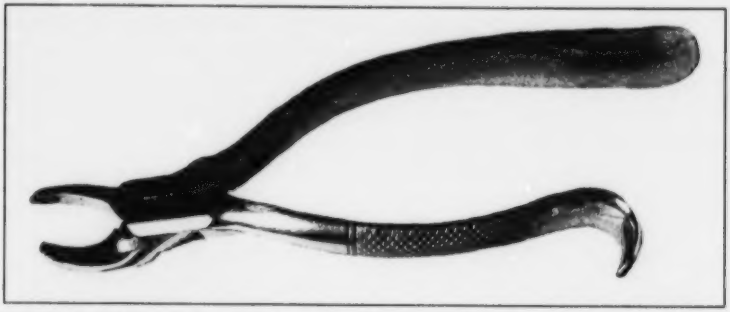


Figure 12. *Forceps for extracting teeth. Musée de l'Hôtel-Dieu de Québec. Photo Denis Ross.*

Figure 13. *Dental forceps for molar. Musée de l'Hôtel-Dieu de Québec. Photo Denis Ross.*

> Once the bleeding has stopped, the nostril is dressed with swabs or tents covered with stringent and drying powders.[41]

Extraction of teeth was yet another common surgical practice. The end of the eighteenth century saw the shaky beginnings of specialization in the field of dental care. Under the 1788 ordinance, the least-able surgeons were restricted to this practice.

While midwives generally assisted women with childbirth in the seventeenth and eighteenth centuries, surgeons became increasingly involved in the world of obstetrics. On occasion they were required to perform Caesarean sections. Post-mortem Caesareans were generally allowed and, in fact, even recommended by the Church. It was most important that the child live, particularly until baptism was performed. Although an incision into a living woman was generally considered tantamount to murder and met with great resistance, expert opinion sometimes differed. In 1715, the French surgeon Guillaume Mauquest de La Motte observed in his treatise on surgery that it was better to intervene than to let a mother die. There were at least two cases of Caesarean sections done in Canada at the end of the eighteenth century, one on a living woman; both were attempts to save the life of the child at least until it could be baptized.

Medications

In the seventeenth and eighteenth centuries the development of a system of classifying diseases (nosology) and expertise in the selection of medicines had not made much progress. Knowledge based on experience or observation was scorned by official medical practice and preference given to the so-called rational approach based on theories and systems dating back to the time of the Greek physicians Galen and Hippocrates. Medicines were classified more by their effect on symptoms or on the humours than by their action on the actual causes of diseases, causes that were generally unknown.[42]

According to Nicolas Lémery, one of the most celebrated writers in the field of pharmacy of the time, medicines were divided into two main categories: the general and the specific. General medicines included products promoting elimination, alteration or

strengthening of the humours but were not related to any specific disease. They were divided into three categories: evacuants, alteratives and tonics.[43]

Evacuants or purgatives promoted the elimination of excess humours and included emetics, sudorifics, laxatives and diuretics. Alteratives changed the state of the body's fluids and solids but did not induce elimination. They could both moisten or dry out wounds, bind or relax the body's tissue or even induce drowsiness. The fortifying tonics or cordials were intended to increase strength.

There were eight types of specific medicines, which included antispasmodics, antiscorbutics, antidotes for poisons and antifebriles to combat fevers.

Somewhere between these general and specific remedies, there were also medicines for the treatment of individual organs or particular parts of the body. Ophthalmic remedies were used for the care of the eyes; cough syrups or chest remedies were used for chest ailments; and stomach remedies for stomachaches. There were cephalic remedies that produced "a vapour pleasing to the brain". Hepatics that fortified the liver by removing impurities from the blood; splenics that regulated the spleen; emmenagogues that stimulated the menstrual function or alleviated the after-effects of childbirth; and "hysterics" that relieved diseases of the uterus.

There were no clear distinctions between these products and, depending on the nature of the disease or the patient's state of health, they could have different effects. If they were combined, such effects could be intensified. The ingredients contained in "catholicum," for example, reputed to be capable of purging all the humours, contained wall-ferns, fennel seeds, sugar, senna, liquorice, rhubarb, cassia leaves, tamarind, violet seeds and aniseed.

Phytotherapy, that is, the use of medicinal herbs to treat ailments, was one of the primary approaches used in the practice of medicine during this period. Most of the basic ingredients in the medicines were in fact derived from plants. Flowers (such as red poppy and chamomile), leaves (those of chervil and wormwood, for instance), fir or spruce resin, the roots of some plants (for example, iris and burdock), seeds (such as caraway or aniseed) and flours (such as barley) provided ingredients for medicinal products.

Figure 14. Bronze mortar with fleur de lys decorations and its pestle, seventeenth or eighteenth century. Hospitallers of Saint Joseph (RHSJ). Photo Denis Ross.

Some animal products also had medicinal purposes: eggs, castoreum (secreted by glands in a beaver's groin), mutton fat and fox lungs, to name a few. In addition, minerals and metals were used, notably salt, sulphur, antimony, mercury, lead, copper and iron.

These ingredients were often applied or taken in their natural state. They might also be processed in some way, for example, boiled or served in infusions. Their form and consistency could also vary depending on the use for which they were intended. For internal use, they could be taken in the form of pills, syrups, draughts, teas or elixirs, while for external use they could be applied as lotions, poultices, ointments or eye washes.

By following instructions given in textbooks a practitioner could prepare remedies from the various basic ingredients. Colonists could also purchase medicines with secret ingredients, a number of which had been "patented." These products were advertised as soon as newspapers appeared after the conquest by the English and could be bought from the apothecaries in the colony. "Turlington's Balsam of Life" was a good example of this type of remedy. Advertising portrayed it as a general cure-all, effective for stones, gravel, colic, vomiting, spitting of blood and other "internal debilities." It also claimed that some thirty-odd

afflictions could be cured by this medicine, ranging from a simple cough to "general decline," and most certainly rheumatisms and despondency!

The Canadian Pharmacopoeia

Many of the medicines and medicinal products of the settlers had been used in Europe for centuries. Although most of the basic ingredients were imported, some were grown or harvested in Canada. A few simples (medicinal herbs) were grown for the poor in the garden at the Hôtel-Dieu de Québec. They were also grown as early as 1681 by a Montréal surgeon.

Some types of plants adapted to the Canadian climate, self-seeding and spreading. This was notably the case of brooklime (*Veronica beccabunga*), which was introduced in the seventeenth century and now grows wild de Quebec. This plant, an antiscorbutic, was described by Jean-François Gaultier as the "first salad eaten in Canada."[44]

A number of other plants introduced into Canada during the French régime were used as both official and popular medicines: speedwell (*Veronica officinalis*), comfrey (*Symphytum officinalis*), St. Johnswort (*Hypericum perforatum*), and birchwort (*Aristolochia clematitis*).

In addition to plants and products derived from various types of trees, some Canadian animal products were also used as medicinal ingredients. Beaver kidneys, in particular, as well as bear and skunk fat, were even exported to France.

The properties of mineral water were well known at this period and many springs in Europe were renowned for their healing effects. In Canada, people have visited the mineral springs at Baie-Saint-Paul since the eighteenth century. The colonists who used this sulphurous water for washing and drinking attributed healing properties to it, notably for skin afflictions such as scabies and dermatitis.

During the eighteenth century particularly, the French and colonial authorities paid considerable attention to the medical and economic potential of Canadian flora and fauna. Doctors such as Michel Sarrazin or Jean-François Gaultier gathered plants, conducted experiments and compiled notes and data. Their work

Figure 15. *Earthenware pharmacy jar that formerly contained a confection of laurel berries, eighteenth century. Hospitallers of Saint Joseph (RHSJ). Photo Denis Ross.*

was highlighted by a regular exchange of correspondence with members of L'Académie royal des Sciences [the Royal Academy of Sciences] in Paris.

There was interest in the medicinal herbs used by the Indians. In 1732, during his expedition to the territory of the King's land and by virtue of orders he had received, the surveyor Joseph-Laurent Normandin questioned the Indians regarding their use of medicinal plants. One of the older colonists, Catherine Jérémie Lepailleur, who according to Intendant Hocquart had "worked long and hard to learn the secrets of the natives' medicine," and Hubert-Joseph Lacroix regularly sent specimens to France. In 1749, a report written by Doctor Gaultier on plant gathering and other aspects of natural history was sent by Governor La Glissonière to the commanders of posts in New France and Louisiana.[45]

For the most part, the French made little use of this scientific effort from the colonies. Canadian maidenhair, a type of fern used as the main ingredient in a syrup for diseases of the lung, was one exception. It was used in France in the seventeenth century primarily because its properties made it superior to the Montpellier

Figure 16. *Small earthenware ointment jar, eighteenth century. Hospitallers of Saint Joseph (RHSJ). Photo Denis Ross.*

maidenhair it replaced. The head of the Hôtel-Dieu de Québec regularly sent it to France either in dried or syrup form. In 1738, some 4,535 pounds of maidenhair were unloaded in the port of La Rochelle alone.[46] One other Canadian medicinal export of note was the resin from the fir. It was widely distributed in France under the name "baume blanc du Canada" [Canadian white balsam]. Although medical practitioners in Canada used primarily European medicines, they did not hesitate to adopt indigenous plants. These were often plants with the same physical properties as those used in France, such as wild sarsaparilla (*Aralia nudicaulis*), whose "root passes here for a sarsaparilla and is used as such." A variety of asters was mistaken by the "surgeons in Canada...for a betony and used as if it were." Magical properties had been attributed to this plant by the Egyptians and it ranked at the top of the official French pharmacopoeia. It produced a wide range of effects and was said to be useful for the treatment of "diseases of the brain and lower abdomen."[47]

A number of medicinal plants used by the Indians were adopted by the French colonist as part of their folk medicine—cranberry to relieve diarrhea, wild anise (*Aralia racemosa*) to

soothe ulcers and wounds, and ash seeds to control palpitations. Common yarrow (*Achillea millefolium*), cocklebur, agrimony (*Agrimonia striata*), everlasting, Labrador tea, the greater plantain and the sorb were also a few of the plants whose healing properties were known to the native people.

The colonists learned of the medicinal properties of the fir, tamarack and maple from the native people. The multiple uses of the fir resin that became so popular in France were described by Pierre Boucher in 1664:

> This balsam is used for varnishes and for medicinal and surgical purposes. It is taken internally for diseases of the kidney when urine does not flow easily, for abscesses in the lungs and various parts of the body, and for ulcers in the bladder. In addition, the colonists take a spoonful or two of this balsam to purge themselves. They mix it with olive oil and swallow it. This purges them gently. It is also used to dress wounds.[48]

Tools

Instruments

Few surgical instruments from the seventeenth and eighteenth centuries have survived in Canada. However, estate inventories do provide a good idea of their nature and use and suggest a wide diversity of medical practices.

Lancets used to open veins and, occasionally, arteries, were in widespread use. Reference to basins or bowls specifically designed to collect blood may be similarly found. Such items indicate that bloodletting was a common practice in the colonies.

Mortars and pestles used to grind solid substances into powder are regularly mentioned. Less frequent are references to scales and balances for weighing medications, to containers, phials and, more rarely still, to alembics or condensers for distillation. Such apparatus appeared in the inventories of surgeons, indicating that they performed apothecary functions in Canada.

Syringes for injecting liquids into body cavities were often listed. Although used experimentally as early as the seventeenth century, intravenous injections were not yet used in therapeutic practice. Also found in the inventories were forceps (long-armed tongs) to remove teeth; trocars, those steel stylets used to open the abdominal cavity to drain fluids; probes, solid or hollow, for blisters, wounds or fistula; knives and bistouries (a small slender knife); tweezers; saws for amputation; oysters (a type of plane) to scrape bones and trepans (an instrument like a drill) to perforate them.

A notary inventoried the property of the surgeon Jourdain Lajus of Québec City in 1724. He recorded three syringes with their attachments, a small syringe for wounds, two cast-iron pestles and their mortars, seven pewter "basins," a large pot (kettle), three small copper pots, five earthenware shaving basins, forty old razors, twelve lancets, a small spatula, several probes, syringes, pairs of scissors, bistouries and scales, one crystal bottle, and two copper stills.

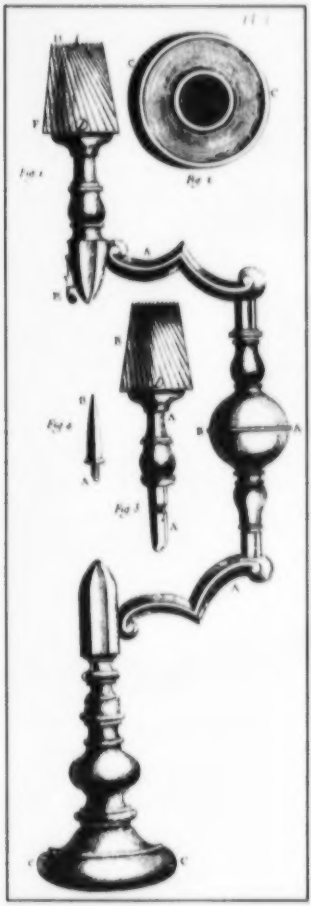


Figure 17. *A trepan and its various parts. Jean-Louis Petit,* Traité des maladies chirurgicales, et des opérations qui leur conviennent, *vol. 1 (Paris: P Fr. Didot le jeune, 1774), plate 3. Library of the Séminaire de Québec, Ancien fonds. Photo Denis Ross.*

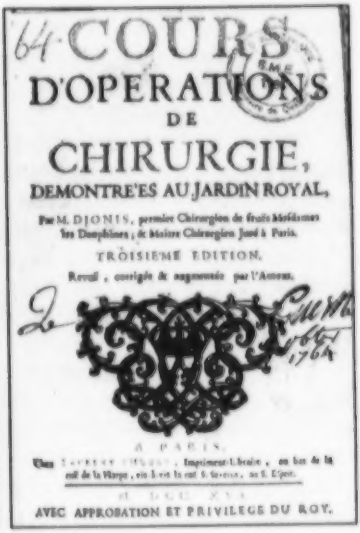
In 1786, the British surgeon Richard Hope appeared to be one of the few health-care practitioners to possess "a box about six feet high containing a complete skeleton of the human book."

Based on the few available instruments, European surgeons and their Canadian counterparts in the seventeenth and eighteenth centuries created other tools of varying shapes, sizes and uses. In some cases the quality, precision and workmanship of the objects marked significant progress in surgery. Such innovations also testified to the daring of the surgeons. Some of these new instruments were reported in the medical literature of the time; for example, the surgeon Laurent Heister described the eleven different needles he used for a "closure" of the eye, each one made with precise, delicate and often complex workmanship.[49]

Medical Books

Health practitioners of the period relied on medical books to guide them in the practice of medicine. A doctor going to the New World would probably take them with him. One of the first doctors to practise in New France, Jean de Bonamour, brought several textbooks in 1669.

More can be learned of the use of medical textbooks in New France by again examining estate inventories of the time. A survey of 962 inventories of the residents of Québec City


64 COURS
D'OPERATIONS
DE
CHIRURGIE,
DEMONTRE'ES AU JARDIN ROYAL,
Par M. DIONIS, premier Chirurgien de feuës Madame
les Dauphines; & Maître Chirurgien Juré à Paris.
TROISIEME EDITION.
Revuë, corrigée & augmentée par l'Auteur.
1667
1764
A PARIS,
AVEC APPROBATION ET PRIVILEGE DU ROY.

Figures 18 and 19. *Dionis and his famous treatise on surgery, which went through several editions. Copies were owned by the Séminaire de Québec (1708, 1716 and 1757 editions), the Quebec priest De Guerne (1716 edition) and the surgeons Blin (1757 edition) and Besserer (1757 edition). Library of the Séminaire de Québec, Ancien fonds. Photo Denis Ross.*

for the period 1690 to 1760 indicates that of the 297 that listed books only 18 referred to medical books. These books were owned by four surgeons, a doctor, a goldsmith-watchmaker, and individuals involved in the administration of justice, in the profession of notary public, and in trade.[50] The survey further reveals that there was no one standard reference work. Included are Madame Fouquet, *Remèdes charitables* [Charitable Remedies], *Receuil de remèdes* [Compendium of Remedies], *Œuvres du médecin charitable* [Charitable Medical Works] and *Traité des femmes grosses* [Treatise on Pregnant Women].

Although precise information about the books is often not found in estate inventories, we can deduce that most members of the medical profession in the colonies owned books. These

included works on surgery, medicine, anatomy and botany. Most practitioners possessed fewer than ten medical books. Only Bernard Duberger and Michel Sarrazin were exceptions. They owned 38 and 77 works, respectively.

Medical works were also to be found in institutional libraries. The College of the Jesuits probably held the largest collection of medical books in Canada, with over 130 titles. Recent works were shelved beside the great classics of medical literature. In addition to the time-honoured treatises on venereal diseases, rheumatism, smallpox and tumours, the library had acquired the works of the most well-known authors of the period, such as Dionis, Sydenham, Petit and Helvétius.

The *Traité des maladies les plus fréquents et des remèdes propres à les guérir* [Treatise on the Most Common Diseases and Remedies for Their Cure] by Helvétius was in particular a popular reference, having been reprinted a number of times during the eighteenth century and translated into several languages. It was mentioned frequently in the inventories; Doctor Sarrazin as well as several surgeons owned copies. Such topics as "how to identify diseases, the pulse and crises," bloodletting, diets and medicine, and various therapies designed to cure the most common ailments were covered in this tome.[51]

Since there was no printing press in Canada during the French régime, Canadian surgeons used books imported from France, usually published in Paris. *Direction pour la guérison du Mal de la Baie St-Paul* [Methods for Treating Baie Saint-Paul Disease], written by the surgeon James Bowman and published in 1785, was the first medical book printed in Canada. The early Canadian health practitioners, however, did have access to the most current works of the period, and there is nothing to indicate they lagged significantly behind their European colleagues from the standpoint of medical literature.[52] The accessibility of practitioners to medical literature, however, becomes difficult to determine after the conquest by England in 1760. In 1789, the health practitioner Pierre de Sales Laterrière, who had settled in Canada over 30 years previously, noted that "not only the most approved English authors are unknown to most of us, but even the late French writers on physic and surgery are scarcely seen among us." Even if French books did reach Canada after 1760—in 1767, the Seminary of Québec owned the third edition of *Avis au peuple sur sa santé*

[Notice to the Public regarding Health Matters] by Tissot, which had just been published—estate inventories of surgeons for 1780s are too few in number and too imprecise to disprove or confirm Laterrière's statements. The *Gazette de Québec* occasionally advertised books for sale, but these were predominantly, if not exclusively, English-language texts. According to estate inventories, English works were clearly not popular among the French colonists. Perhaps, the aging of the French medical corps might have contributed to this lack of interest in advances in medical science during the period.[53]

Conclusion

The seventeenth and eighteenth centuries were a period of transition in the history of medicine. Knowledge acquired during the Renaissance was consolidated at this time and gave rise to a number of innovations that proved to be precursors to the medical revolution ushered in during the nineteenth century.

In Canada during this period there were hospitals and practitioners who tried to respond to various diseases, to recurrent onslaughts of epidemics and to other medical requirements. Disease, however, continued to be perceived as a manifestation of the wrath of God. Recourse to the supernatural, either in the form of pilgrimages, prayers to saints, or other religious supplications, also constituted some of the therapies used by the people. Alternative practices to official medicine likewise arose, such as bone setters, unqualified practitioners and sorcerers, and the population found cures in medicinal plants, animal products or mineral waters.

Plant therapy and bloodletting remained common practices. Lack of knowledge regarding the precise causes of disease and human physiology, the absence of sound investigative methods, and the use of remedies based primarily on the treatment of symptoms and analysis of their effects on the humours made the application of medicine quite risky for the patient. Although, some remedies, some treatments and some practices did prove effective, it is difficult to know whether the medicine of this period saved more people than it killed.

Contributions to the science of pharmacy from the new land were relatively minor and had little impact on official medical practice. Canadian maidenhair fern, fir balsam and beaver kidneys attained popularity in France, but they only enriched the official pharmacopoeia and most certainly did not change it drastically.

Without anaesthetics, asepsis or antisepsis, surgery continued to be a very minor practice, dreaded at best, which did not receive official recognition until the nineteenth century. However, analysis of the instruments and medical literature in use in the colony revealed that Canadian practitioners had the same basic medical tools as their European colleagues.

The Church contributed to the care of the sick, primarily through the hospitals under its control. The *hôtels-Dieu* owed their origins to Christian charity and were not reserved uniquely for the care of the body. Care of the soul was equally their concern and they were intrinsically linked to its salvation. The hospitalization period was thus a time of grace or, at least, of moral and spiritual regeneration. Although the number of beds available for the population was limited—less than a hundred beds for all three *hôtels-Dieu* in Canada in the mid-eighteenth century—the *hôtels-Dieu* admitted hundreds or even thousands of patients annually. Far from being waiting rooms for death, the care and varied diet they provided contributed to the cure of most patients. In addition, from the richest to the poorest, the *hôtels-Dieu* were accessible to all. Their architecture, regulations, therapeutic practices and ideology were thus essentially French in tradition.

Until the American War of Independence, the medicine practised on Canadian soil in the seventeenth and eighteenth centuries continued to be primarily French. This influence was evident not only in the members of the health-care professions and hospitals, but also in the training, knowledge, literature, tools, pharmacopoeia and techniques they applied.

Notes

For all the sources used and a more exhaustive bibliography, see Renald Lessard, *Se soigner au Canada aux 17e et 18e siècles*, Mercury Series, History No. 43 (Hull: Canadian Museum of Civilization, 1989), 158 pp.

1. A number of studies on Canadian medicine in this period have been written. In the first half of the twentieth century, doctors Michael Joseph and George Ahern, John J. Heagerty, and Arthur Vallée pioneered this field. Michael Joseph and George Ahern, *Notes pour servir à l'histoire de la médecine dans le Bas-Canada* (Québec: Imprimerie Laflamme, 1923), 563 pp.; John J Heagerty, *Four Centuries of Medical History in Canada*, vol 1 (Toronto: Macmillan, 1928), 395 pp.; Arthur Vallée, *Un biologiste canadien, Michel Sarrazin, 1659-1735. Sa vie, ses travaux et son temps* (Québec: Ls-A Proulx, 1927), 291 pp.

2. Pierre Boucher, *Histoire véritable et naturelle (des moeurs et productions du pays de la Nouvelle-France vulgairement dite le Canada) 1664* (Boucherville, Que.: Société historique de Boucherville, 1964), p. 142.

3. Helena O'Reilly dite Saint-Félix, *Monseigneur de Saint-Vallier et l'Hôpital Général de Québec: histoire du monastère de Notre-Dame-des-Anges* (Québec: C. Darveau, 1882), pp. 163-64; Cyprien Tanguay, *A travers les registres* (Montréal: Librairie Saint-Joseph, 1886), pp. 19, 26, 32, 41, 57, 63, 74, 85, 106.

4. Letter from Denonville to the Minister, May 8, 1686, Archives nationales, France, Archives des Colonies, series C11A, vol. 8, f. 16v-17r.

5. Letter from Michel Sarrazin to Monsieur de Réaumur, October 4, 1728, published in Vallée, *Un biologiste canadien*, p 231; letter from Marie-Andrée Duplessis de Sainte-Hélène to Féret, October 30, 1738, published in "Lettres de Mère Marie-Andrée Duplessis de Sainte-Hélène Supérieure des Hospitalières de l'Hôtel-Dieu de Québec," *Nova Francia* 4, no. 6 (1929): 372.

6. Pehr Kalm, *Voyage de Pehr Kalm au Canada en 1749* (Montréal: Pierre Tisseyre, 1977), f 659; Renald Lessard, *Le mal de la baie Saint-Paul* (Québec: CELAT — Université Laval, 1989), 107 pp.

7. Monsieur Du Hamel, "Observations botanico-météorologiques faites à Québec," in *Histoire de l'Académie royale des Sciences* (Paris: Imprimerie royale, 1748-54): Année 1744, pp. 135-55; Année 1745, pp. 194-229; Année 1746, pp. 88-97; Année 1747, pp. 466-488; Année 1750, pp. 309-10; Jean-Pierre Goubert, *Malades et médecins en Bretagne. 1770-1790* (Rennes, France: Institut américain de recherches historiques, 1974), pp. 268-70.

8. Monsieur Du Hamel, "Observations botanico-météorologiques faites à Québec", in *Histoire de l'Académie royale des Sciences*, Année 1745 (Paris: Imprimerie royale, 1749), p. 224.

9. Goubert, *Malades et médecins*, pp. 267-383; Tanguay, *travers les registres*, pp 32, 41, 57, 63, 74, 85, 106, 113, 128, 140, 150, 179, 211, 216, 228.

10. Bernice Hamilton, "The Medical Profession in the Eighteenth Century," *The Economic History Review*, 4, 2nd series, no. 2 (1951): 141-69; Pierre L. Thillaud, *Les maladies et la médecine en Pays Basque Nord à la fin de l'Ancien Régime (1690-1789)* (Geneva: Librairie Droz, 1983), pp. 75-105.

11. Agreement between François de la Minade and Jean-Baptiste Cardinet dit Chevalier, October 30, 1706, Archives nationales du Québec à Québec (ANQ-Q), CN 301-58/33, Notarial File (greffe) of Louis Chambalon, no. 3443; inventory of the late Thérèse Brideau and Charles Remonneau, June 26, 1718, ANQ-Q, CN 301-87/9, Notarial File (greffe) of Jean-Étienne Dubreuil, no. 1060.

12. Reply by Christopher Diller to John Thos. Ledger's accusations against Christopher Diller, April 7, 1786, ANQ-Q, T50-301/36, Cour des plaidoyers communs, Québec district, no. 3059.

13. Gabriel Nadeau, "Le dernier chirurgien du Roi à Québec, Antoine Briault, 1742-1760," *L'Union Médicale du Canada* 80 (June 1951): 714-15; letter from the Minister to Hocquart, March 31, 1745, Archives des Colonies, series B, vol. 81, f. 254v.

14. Hélène Laforce, *Histoire de la sage-femme dans la région de Québec* (Québec: Institut québécois de recherche sur la culture, 1985), pp. 152-62.

15. Act or order prohibiting anyone from practising medicine and surgery in the Province of Quebec or the profession of obstetrician in the cities of Québec or Montréal without permission, April 30, 1788, *Gazette de Québec*, May 15, 1788; Jacques Gélis, *La sage-femme ou le médecin, une nouvelle conception de la vie* (Paris: Fayard, 1988), pp. 173-94; *Gazette de Québec*, December 30, 1784; Gazette de Montréal, September 27, 1787.

16. Order by Raudot regarding the practice of surgery in Canada, July 1, 1710, ANQ-Q, E1/3, Ordonnances des intendants, Cahier no. 4, f. 68r-68v; order by Bigot regarding the practice of surgery in Canada, June 12, 1750, Archives des Colonies, series C11A, vol. 96, f. 329r-331v; Act or order prohibiting (...), April 30, 1788, *Gazette de Québec*, May 15, 1788, pp. 224-25.

17. We have found physicians, surgeons and apothecaries mentioned in documents over a period of 149 years, from 1639 to 1788. We were greatly assisted by the historical demographic research programme at the Université de Montréal, which provided us with a list of all vital statistics entries prior to 1766 referring to health practitioners.

18. Note that no Canadian institution taught medicine. Medical training was acquired through apprenticeship or taken outside the country. Additional training could be gained by working as a surgeon's assistant in hospitals under the guidance of the king's physician. In addition, at least at the end of the eighteenth century, corpses of criminals executed by the State were "handed over to surgeons to be dissected." *Gazette de Québec*, September 15, 1768.

19. Jean Imbert, *Histoire des hôpitaux en France* (Paris: Privat, 1982), p. 167.

20. Renald Lessard, "Le Bureau des Pauvres de Sainte-Famille île d'Orléans (1698-1700)," *Cap-aux-Diamants* 3, no. 3 (fall 1987): 65; André Lachance, "Le Bureau des Pauvres de Montréal, 1698-1700: Contribution à l'étude de la société montréalaise de la fin du XVIIe siècle," *Histoire sociale* 1, no. 4 (Nov. 1969): 99-110.

21. Memoire Concernant Le retablissement De Lhotel dieu de Quebec, c. 1755, [Report on the restoration of the Hôtel-Dieu de Québec, c. 1755], Archives du monastère de l'Hôtel-Dieu de Québec (AMHDQ), see Mémoires: Projets d'agrandissement et de rétablissement avant et après l'incendie de 1755, 1730-1758, T. 2, C.96, no. 4.

22. Jeanne-Françoise Juchereau de Saint-Ignace and Marie-Andrée Duplessis de Sainte-Hélène, *Les Annales de l'Hôtel-Dieu de Québec, 1636-1716* (Québec: Hôtel-Dieu de Québec, 1939), p. xx; François Rousseau, "Hôpital et société en Nouvelle-France: l'Hôtel-Dieu de Québec à la fin du XVII^{e} siècle," *Revue d'histoire de l'Amérique française* 31, no. 1 (June 1977): 29-30.

23. Mémoire pour servir a connoitre la situation ou se trouve la Communauté et l'hopital des Religieuses hospitalieres de Montreal, September 7, 1734, Archives des Colonies, series C11A, vol. 61, f. 146r-148v.

24. Fondation d'un hopital a la ville des trois rivieres par mr L Evesque de quebec, October 8, 1697, Archives des Colonies, series F5A, vol. 2, f. 184r-195r; letter from Bigot to the Minister, October 24, 1750, Archives des Colonies, series C11A, vol. 107, f. 39r-40v; Isaac Weld, *Voyage au Canada dans les années 1795, 1796 et 1797*, vol. 2 (Paris: chez Gérard), XI, pp. 169-70.

25. Dom Georges-François Poulet, "Récit simple de ce qu'un religieux bénédictin a souffert au Canada au sujet de la bulle Unigenitus," in *Rapport de l'archiviste de la province de Québec pour 1922-1923* (Québec: Ls-A Proulx, 1923), p. 285.

26. Letter from Beauharnois and Hocquart to the Minister, October 7, 1731, Archives des Colonies, series C11A, vol. 54, f. 93r-96r.

27. Letter from Hocquart to the Minister, September 28, 1739, Archives des Colonies, series C11A, vol. 71, f. 137r-138v; Rousseau, "Hôpital et société en Nouvelle-France," p. 42.

28. *Coutumier et Petites regles des Religieuses Hospitalieres de la Congregation de S. Joseph* (Angers: chez Olivier Avril, 1688), p. 33.

29. *Règles et Constitutions des Religieuses de l'ordre de Saint Augustin dites les Filles de la Misericorde, establies à Dieppe* (France, 1631), pp. 295-96.

30. Gabriel Nadeau, "Le dernier chirurgien du Roi à Québec, Antoine Briault, 1742-1760," *L'Union Médicale du Canada* 81 (January 1952): 62.

31. Memoire Concernant Le retablissement De Lhotel dieu de Quebec, c 1755, AMDHQ, Mémoires: Projets d'agrandissement et de rétablissement avant et après l'incendie de 1755, 1730-58, T. 2, C. 96, no. 4.

32. *Le Canadien*, December 15, 1852; Jean Morar dit La Forme vs. Paul Thibodeau, 1780, ANQ-Q, T 50-301/15, Cour des plaidoyers communs, district de Québec, file no. 1978.

33. Lessard, *Le mal de la baie Saint-Paul*, pp. 37-38, 69-73.

34. Raymond Douville, *Yves Phlem dit Yvon le Breton ancêtre des familles Hivon. Les tribulations d'un guérisseur à Sainte-Anne-de-la-Pérade au 18e siècle* (Trois-Rivières: Editions du Bien Public, 1975), pp 6-24; statement by Jacques Houde, surgeon, May 24, 1730, ANQ-Q, vol. 5/113, Collection of judicial and notarial records, file no. 2379.

35. "Actes du très dévot Frère Didace, récollet mort en odeur de sainteté en 1699," in *Le Canada-Français*, vol. 4 (1891), p. 273.

36. Lucien Gagné and Jean-Pierre Asselin, *Sainte-Anne de Beaupré, trois cents ans de pèlerinage* (Sainte-Anne de Beaupré: Georges Bérubé, 1971), pp. 6-17; Georges Bélanger, *La bonne Sainte Anne au Canada et à Beaupré* (Québec: Imprimerie L'Action Sociale Ltée, 1923), pp. 39-57.

37. (Adrien) Helvétius, *Traité des maladies les plus fréquentes, et des remèdes propres à les guérir*, vol. 1 (Paris: Le Mercier, 1739), p. 1.

38. *Chirurgie complette suivant le système des modernes*, vol. 2 (Paris: Veuve de Charles-Maurice d'Houry, 1747), p. 204; François Lebrun, *Se soigner autrefois. Médecins, saints et sorciers aux 17e et 18e siècles* (Paris: Temps actuels, 1983), p. 19.

39. *Chirurgie complette (...)*, vol. 2, p 185; letter from Mère Marie-Andrée Duplessis de Sainte-Hélène to Féret, October 30, 1744, published in "Lettres de Mère Marie-Andrée Duplessis de Sainte-Hélène Supérieure des Hospitalières de l'Hôtel-Dieu de Québec," in *Nova Francia* 6, no. 1 (1931): 42.

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41. *Chirurgie complette (...)*, vol. 2, 111.

42. M.D., *Introduction à la matière médicale en forme de thérapeutique* (Paris: Veuve Quillau, 1753), pp. 5-15; M. Jadelot, *Pharmacopée des pauvres ou formules des médicamens les plus usuels dans le traitement des maladies du peuple* (Nancy: H Haener, 1784), p. 170; P-H Nysten, *Dictionnaire de médecine, et des sciences accessoires à la médecine, avec l'étymologie de chaque terme; suivi de deux vocabulaires, l'un latin, l'autre grec*, 3rd ed. (Paris: Chez J.-A. Brosson, 1814), p. 329.

43. Nicolas Lémry, *Pharmacopée universelle contenant toutes les compositions de pharmacie* (Amsterdam: aux dépens de la Compagnie, 1748), p. 1.

44. Monsieur Du Hamel, "Observations botanico-météorologiques faites à Québec," in *Histoire de l'Académie royale des Sciences*, Année 1746 (Paris: Imprimerie royale, 1751), p. 93; Frère Marie-Victorin, *Flore laurentienne* (Montréal: Presses de l'Université de Montréal, 1964), p. 474.

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46. M. Geoffroy, *Traité de la matière médicale ou de l'histoire des vertus, du choix et de l'usage des remèdes simples*, vol. 65, *Traité des végétaux*, section 2, "Des plantes de notre pays" (Paris: Jean Desaint and Charles Saillant, 1743), pp. 52-55; goods entering the kingdom through the port of La Rochelle, 1718-1741, Archives départementales de la Charente-Maritime, Chambre de commerce de La Rochelle, carton 27, file no. 1, nos. 9385-9409.

47. ANQ-Q, P 91/1, Jean-François Gaultier, Histoire des Plantes du Canada, pp. 12-14, 18; Jadelot, *Pharmocopée des pauvres*, pp. 170-71; Liger, *La nouvelle maison rustique, ou économie générale de tous les biens de campagne: La manière de les entretenir & de les multiplier*, vol. 2 (Paris: Saugrain fils, 1755), p. 398.

48. ANQ-Q, P9111, Jean-François Gaultier, "Description des Plantes du Canada," pp. 137-38.

49. Laurent Heister, *Institutions de chirurgie* (Paris: P. Fr. Didot le jeune, 1771), vol. 2, pp. 638-39.

50. Survey conducted by Yvon Desloges and Gilles Proulx, historians with the Canadian Parks Service.

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Health Care in Canada

When the French first came to Canada at the beginning of the seventeenth century, they brought not only their religion, culture, and language, but also the medical practices of their homeland. By today's standards, many of these practices, such as the widespread use of bloodletting, seem crude; nevertheless, some remedies, some treatments and some procedures were effective. During the seventeenth and eighteenth centuries, medical practice in Canada remained essentially European in its personnel, institutions, methods, instruments, therapies and medicines. Renald Lessard describes this practice and its practitioners, recognized or otherwise, and at the same time explores the basic medical needs of a country in the making.

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